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# Installing the Eclipse JPF plugin (Using Eclipse >= 3.5)

### **Using the Update Site (Simplest Method)**

- 1. Ensure that you are running Eclipse >= 3.5 (Galileo)
- 2. In Eclipse go to Help -> Install New Software
- 3. In the new window selected "Add"
- 4. The name is up to you but, set "Location" to <a href="http://babelfish.arc.nasa.gov/trac/jpf/raw-attachment/wiki/install/eclipse-plugin/update/">http://babelfish.arc.nasa.gov/trac/jpf/raw-attachment/wiki/install/eclipse-plugin/update/</a>
- 5. From the "Work with:" drop down menu select the update site that you just entered from the previous step
- 6. Check the "Eclipse-JPF" check box, select "Next" and go through the install process.

## Running JPF using plugin

- 1. Right click on the a .jpf file. Examples can be found in the src\examples directory in jpf-core
- 2. If the eclipse plugin is correctly installed, a Verify option will appear.
- 3. Select the Verify option and the verification process of the system specified in the .jpf file begins

Note that the Application.jpf file essentially replaces previous uses of eclipse launch configurations. The required element of a .jpf file is the **target=MAIN\_CLASS** where **MAIN\_CLASS** is the class containing main method of the system under test. Any other configurations that need to be specified can be added here. for example 'listener=gov.nasa.jpf.tools.SearchMonitor'.

#### **Alternate Installation**

- 1. Download and install <u>ipf-core</u>, e.g. from the <u>Mercurial repository</u>
- 2. [Optional] Download and install jpf-shell if you want to use the JPF Swing UI
- 3. ----- take a break -----
- 4. Download the eclipse-jpf\_\*.jar file (attached to this page).
- 5. Place the downloaded jar into the dropins folder in your Eclipse installation directory
- 6. Start (or Restart) Eclipse.

## Warning:

this plugin requires Eclipse >= 3.5 (Galileo) running on J2SE-1.6

If your Eclipse installation does not have a dropins folder, it is too old. Otherwise just copy the plugin into the dropins folder, restart Eclipse, and check if you can see **and select** the "JPF Preferences" page in your global Eclipse preferences. If you don't see the "JPF Preferences" in the list, you might either have an old Eclipse version, or you might be running Eclipse under an old Java version. Check the Eclipse "Error Log" to see if it gives you any clues.

You can also check the "Installation Details" from the "About Eclipse" dialog. Click on the "Configuration tab" and scroll down until you see a "java.version" entry. If that is not >= 1.6 then the fun starts.

Setting the Java version that runs Eclipse is platform dependent.

#### os x

- (1) Make sure you have J2SE-1.6 installed (if you don't know, look at /System/Library/Frameworks/JavaVM.framework/Versions there should be a 1.6 directory)
- (2) If you want to set this as the system default, there is a "/Applications/Utilities/Java Preferences" application to do that
- (3) Alternatively, you can also set this explicitly from within the Eclipse launch configuration. Locate the file eclipse.ini within your Eclipse install directory (on OS X, this is eclipse/Eclipse.app/Contents/MacOS/eclipse.ini), and add a -vm option that points to the java binary, e.g.

```
-vm
/System/Library/Frameworks/JavaVM.framework/Versions/1.6.0/Home/bin/java
```

The eclipse.ini file is documented on <a href="http://wiki.eclipse.org/Eclipse.ini">http://wiki.eclipse.org/Eclipse.ini</a>

What this does not tell you is that you have to download the right Eclipse binary to be able to set this. If it is the wrong one, you probably get an error message right when you start Eclipse, saying something like "JavaVM"

Warning: 2

FATAL: Failed to load the jvm library". A preferred reason for this is that you have Java 1.6 installed, but downloaded a 32bit Eclipse. Something like

eclipse-java-galileo-SR1-macosx-cocoa-x86\_64.tar should work (as of this writing).

Yes, this is complicated and error prone. But if you ask us to support older Java and/or Eclipse versions, we just ask you to volunteer for that. We have our hands full with JPF.

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